CLASSIFICATION C-O-N-F-I-D-E-N-T-I-A-L

CENTRAL INTELLIGENCE AGENCY

REPORT

INFORMATION REPORT

CD NO. 25X1

COUNTRY	USSR (Kemerovo Oblast)	DATE DISTR.	9 May 1955
SUBJECT	Construction of the TETS Osinniki Power Plant near Stalinsk	NO. OF PAGES	10
PLACE ACQUIRED		NO. OF ENCLS. (LISTED BELOW)	25X1
DATE OF INFO.		SUPPLEMENT TO REPORT NO.	

THIS IS UNEVALUATED INFORMATION 25X1

1. Attached is a copy which is being forwarded as received.

2. Throughout the report, Ossinniki should read Osinniki. Osinniki is located at N53-38, E87-24. 25X1

25X1

25X1

CLASSIFICATION C-O-N-F-I-D-E-N-T-I-A-L

STATE	X	NAVY	X	NSRB		DISTRIBUTION							
ARMY	X	AI											

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25X1

CLASSIFICATION CONFIDENTIAL

COUNTRY USSR REPORT

TOPIC Construction of the TEZ Ossinniki Power Plant near Stalinsk

25X1

EVALUATION PLACE OBTAINED

25X1

DATE OF CONTENT

25X1

DATE OBTAINED DATE PREPARED 14 February 1955

25X1

REFERENCES

PAGES 3 ENCLOSURES (NO. & TYPE) 2 - two sketches on ditto with legends on ditto

REMARKS

This is UNEVALUATED Information

25X1

1. TEZ Ossinniki Thermal Power Plant was located in a meander of the Tom river near Staro Kusnetsk, also referred to as Kusnetsk, an eastern suburb of Stalinsk, Kemerovo Oblast, at a distance of 1.5 km between the southern perimeter of the suburb and the Tom river. Ossinniki and Baydayevka villages were located east of the power plant and various industrial installations and a settlement in its vicinity. A spur track to the power plant branched off from the Stalinsk - Serenovka railroad line at the southeastern border of Kusnetsk. A shunting station was located about 1 km northeast of the power plant. The Stalinsk - Kusnetsk streetcar line was to be extended to the power plant. The road to Ossinniki and Baydayevka branched off from the Stalinsk - Kusnetsk - Serenovka highway and passed through the northeastern part of the plant area. The Ruspeyka swamp was located northeast of the power plant. [1]

2. The construction of TEZ Ossinniki Power Plant was started in 1939 but was discontinued upon the outbreak of hostilities in 1941. After the war construction activities were continued to enlarge the plant. The project was not completed by August 1950. Part A of the power plant, which was completed by 1941 included one boiler- and turbine house equipped with two Soviet boilers and two Soviet turbines; a switching station with additional rooms for workshops, an outdoor transformer station and an unloading installation for coal with bunkers and a coal grinding shop. Part B constructed after the war within the frame of the Five-Year Plan, included an annex to the boiler and turbine house for four additional boilers and two turbines and also the enlargement of other previously constructed buildings and installations. In the winter of 1947, the third turbine was put into operation and the fourth turbine in October 1948. In late 1948, further construction work was started for the installation of at least four more boilers and two turbines, the enlarging of the switching installations and the outdoor transformer station and the building of a new administration building with kitchen and mess hall. In mid-1950, the fifth turbine was to be put into operation and the foundations for the sixth turbine were to be laid. In early 1950, however, the first part of the last erected girders and the outer walls of the turbine and boiler house sank about 10 to 15 cm and had to be lifted with large hoisting cranes. Further sinking was prevented by supporting them with steel plates. The enlargements were scheduled to be finished by late 1950, but due to various delays, the completion of construction activities could not be expected

25X1 25X1 25X1

25X1

before the summer of 1951. The power plant was to supply electric current to new plants and to the town in the Kusbas area and was to be connected to the ring main extending to Kemerovo. Once or twice every month, the power plant was inspected by civilian and military commissions, in the summer of 1950, by a commission from the Ministry of Industry and Energy (sic) in Moscow. In 1948 and 1949 Director Goldberg (fnu) was manager of the power plant. 2

3. The power plant covered an area of about 120,000 m^2. The roads had a tarred gravel surface. Water was supplied from the Tom river. A canal extended from the river to a reservoir with a pumping station which pumped water through underground pipe lines to the power plant and was located about 800 meters from the river. Sewages were passed to the river through another canal. 3

4. The boilers were preheated with oil and after having reached a temperature of 360°, were fired with high quality anthracite, mined about 10 km from the power plant, and shipped from there every day by large selfdischarging trucks to the two milling plants from where the dust was hauled to the boilers by means of conveyor belts and elevators. The coal consumption with six boilers in operation amounted to 800 to 1,600 tons per 24 hours. No information was obtained on the type and quantity of oil consumed. Soviet foremen stated that part A of the plant had a total output of 35,000 to 40,000 kW and that each of the two American turbines in Part B had a capacity of 25,000 kW. After the completion of all construction activities, the plant was to operate with a total of 8 turbines. From 1946 to late 1949, TEZ Ossinniki with two turbines in operation supplied power to an aluminum plant located in the vicinity. 4

5. No information was available on the work force. Most of the construction work was done by PWs. About 30 Soviet experts worked as foremen, and assembled boilers and electric installations. Twenty to 30 women occasionally did construction work. Work was done in one eight-hour shift and some times in one ten-hour shift. The 400 to 500 PWs worked at day-time only. Only very few PWs worked as electric welders and on the assembly of the turbines.

6. The plant area was surrounded by a board fence with barbed wire top about 2.5 meters high. Guards armed with machine guns were posted day and night at the watch towers. Additional guards were posted at the gates and at the two roads passing through the area. During day time all entrances to the boilers and turbines in operation and to the switching station were continuously guarded by 10 to 12 men plant police who wore some sort of black uniform and were armed with submachine guns and rifles. The PWs had no access to the plant installations which were completed and in operation. They were guarded during the work hours by camp guards. At night the power plant was iluminated by spot lights. 25X1

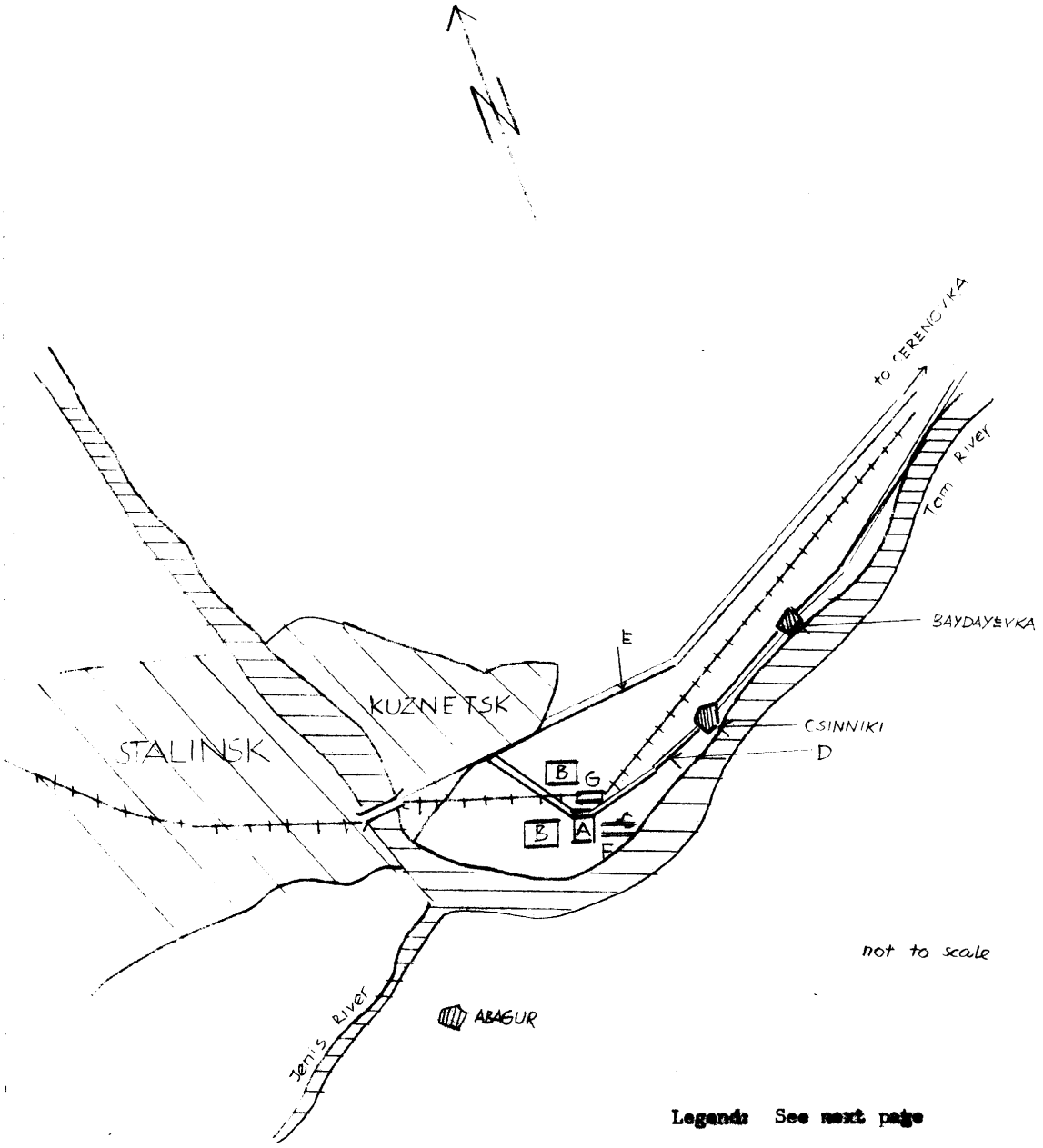
1. [redacted] Comment. For a location sketch prepared from the information [redacted] 25X1
[redacted] see Annex 1. The aluminum plant located just south of the power plant, 25X1
the railroad bridge across the Tom river and the road passing through the
northern part of the power plant were reported [redacted] 25X1

2. [redacted] Comment. [redacted] the power plant was constructed in three 25X1
stages, the first stage from 1939 to 1941, the second one from 1945 to 1948 and
the third one from 1948 to 1950. It seems credible that the third construction 25X1
stage involving enlargements was scheduled to be completed in 1950, but it is 25X1
unknown whether the project was actually completed by that time or not. 25X1

3. [redacted] Comment. For a sketch of the plant layout prepared from the information 25X1
obtained [redacted] see Annex 2. [redacted] the boiler and
turbine house and switching station and the outdoor transformer station. [redacted] 25X1
[redacted] the coal bunkers and the milling plant and also the fact that 25X1
the boilers were fueled with oil and coal. The two canals to the Tom river were 25X1
confirmed [redacted] No clarification could be obtained on the reported
bunkers with tunnel access located southwest of the plant area. They were
possibly air raid shelters. It could not be determined whether all four new
turbines were to be installed in part C of the boiler and turbine house. The
reported dimensions would permit the installation of four turbines in this part
of the building. The wide extensions of the fenced in plant area and the fact
that so far no wall had been erected at the northern end of the building tends
to indicate, however, that a fourth construction stage for a new annex might
have been planned.

4. Comment. Only vague information was obtained on the turbine capacity. 25X1
It is probable that the two turbines had an output of 25,000 kW each. 25X1
With all eight turbines having the same capacity, the total output of the power plant would amount to 200,000 kW. No further conclusion can be drawn unless additional information is received especially on the purpose of the power plant within the industrialization of the Kusbas area.

Location of TEZ Ossinniki Power Plant near Stalinsk



Legends: See next page

Annex 1

25X1

Location of TEZ Ossinniki Power Plant near Stalinsk

Legend:

A TEZ Ossinniki Power Plant

B Aluminum plant

C Pumping station and reservoir with two canals to the Tom river

D Stalinsk - Kusnetsk - Baydayevka road

E Stalinsk - Kusnetsk - Serenovka highway

F Ruspeyka swamps

G Shunting station

25X1

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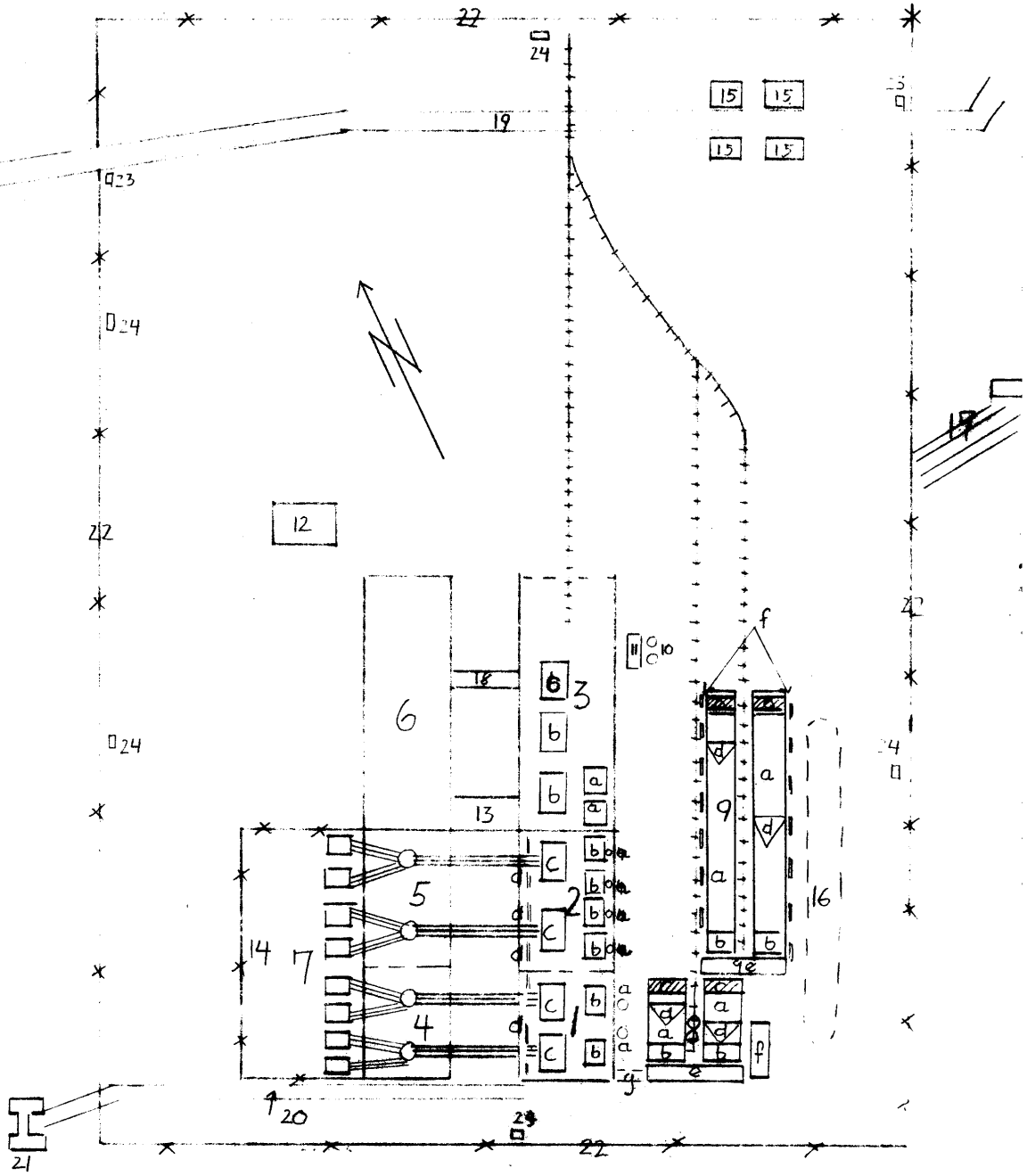
25X1

Annex 2

25X1

25X1

Layout of TEZ Ossinniki Power Plant Near Stalinsk



not to scale

Legend: see next page.

25X1

Layout of TEZ Ossinniki Power Plant near Stalinsk

Legend:

1 - 3 Boiler and turbine house, about 40 x 220 x 30 m, steel structure with concrete fillings. The foundations reaching 8 to 12 m underground carried iron girders, 30 to 35 m high, welded on the foundations at intervals of 2.5 to 3 m, and interconnected by cross beams. The walls, about 35 cm thick, were bricked up with 1½ bricks. The concrete floor of the halls, about 30 cm thick, was supported on concrete poles, about 12 m high, which were driven into the swampy ground at intervals of 2.5 to 3 m. The roof, an about 30 cm layer of slag concrete, was covered with a layer of asphalt about 2 cm thick and two layers of roofing paper. A wall extending through the length of the building separated the western half with the turbines from the eastern part with the boilers. The outer walls has two rows of windows.

1 Part A, about 40 x 40 x 30 m, constructed during the first stage from 1939 to 1941.

a. Two sheet metal funnels, about 60 m high

b. Two Soviet steam boilers for oil and coal dust fueling

c. Two Soviet [redacted] made steam jet turbogenerators 25X1

d. Overhead crane installation with two [redacted] cranes with a carrying capacity of 60 and 10 tons respectively. The installation extended into part B [redacted] 25X1 25X1

2 Part B, about 40 x 80 x 30 m, erected in the second construction stage from 1945 to 1948. 25X1

a. 4 sheet metal funnels, extending from the interior of the boiler shop about 10 m above the roof which was slightly flatted at this part

b. 4 oil- and coal dust fueled steam boilers [redacted] 25X1

c. 2 25.000 kW steam jet turbogenerators, [redacted] 25X1 25X1

d. Crane installation extending from Part A

3 Part C, about 40 x 100 x 35 m, erected during the third construction stage which was started in late 1948 and was not completed by summer 1950 when the bare structure was ready and some equipment had been installed. No wall had been erected yet at the northern end of the building into which a spur track extended. Part B and C were separated by a wall with about three doors.

a. 2 Soviet boilers installed in April 1950

b. 2 steam jet turbogenerators, assembled in April 1950 but not yet in operation. Originally [redacted] turbines were to be installed, but German and Hungarian made turbines had allegedly arrived 25X1

c. Completed turbine foundation for which about 500 m^3 concrete had been used. All turbine foundations were 2 or 3 m high. There was space for two or three more turbine bases in this part of the building.

4 - 6 Switching station with workshops, about 30 x 200 x 25 m. The two-story building had been erected in three construction stages. The ground floor of part 4 and 5 housed workshops including a fitting shop, a forge, an armature winding shop and stores. The main switching installations were located on the second floor. Part 6 was being plastered in April 1950.

25X1

7 Outdoor transformer station with long distance power lines extending in various directions, including one to Novosibirsk and one to Kemerovo. The three-wire power lines had a voltage of 10,000 V and were supported by masts, about 20 m high.

8 Open coal bunkers, about 20 x 40 m. A spur track supported by a concrete base extended into the center of the installation.

a Concret bunkers, about 4 m deep and 4 or 5 m wide

b Power unit for worm conveyers

c Hoisting drum for worm conveyers

d Worm conveyer hauling coal to the milling plant

e Coal milling plant

f Unloading station

g Slanting elevator, partly underground, carrying coal dust to the bunkers located over the boilers from where it was forced by compressed air into the boilers

9 Roofed coal bunker, about 20 x 100 x 10 m, ferro-concrete structure with bricked up walls. The roof was covered with concrete slabs. In ground level a spur track supported by concrete bases extended into the building. Concret bunkers, about 100 m long, 4 or 5 m wide and 4 m deep, were located on either side of the track. About 10 large selfdischarging trucks were unloaded simultaneously.

a Bunkers

b Engine for conveyer worm

c Hoisting drum for conveyer worm

d Conveyer worm

e Coal milling shop

f Supporting pillars

g Slanting elevator, partly underground, to carry coal to the bunkers overhead the boilers

10 Oil dump with two metal tanks, about 6 m in diameter and 4 m high

11 Pumping installation to pump oil through pipe lines to the boilers

12 Two-story administration building, brick structure, about 20 x 20 x 10 m, with plant kitchen and mess hall on the ground floor

13 Connecting building, about 8 x 20 x 10 m, between boiler and turbine house and switching station; transformers were allegedly to be installed here. (sic)

14 Area surrounded by a fence, 2 m high. Outdoor transformers and various electric installations with insulators were seen here.

15 Temporary building housing workshops and stores for various materials

16 Coal dump

17 Pumping station, wooden building about 15 x 25 x 8 m, with reservoir and canals leading to the Tom river

18 Cable chute, about 170 cm deep and 150 cm wide, concreted and covered with concrete slabs, interconnecting Part C of the turbine and boiler house with Part C of the switching station.

19 Tarred gravel road branching off from the Stalinsk - Serenovka and passing through the plant area in the direction of Ossinniki and Baydayevka.

20 Above surface tunnel, about 10 m wide and 5 or 6 m high, leading from the boiler and turbine house to an H shaped bunker. The side walls, about 40 cm thick, had windows set at intervals of 10 to 15 m. The tunnels were to be covered with earth. It was continuously guarded. It could not be determined whether an air raid shelter was involved or not.

21 H shaped bunker, possibly an air raid shelter.

22. Fence

23 Guard house

24 Watch towers

[redacted] CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT [redacted] 25X1

CD NO.

COUNTRY USSR (Kemerovo Oblast)

DATE DISTR. 9 May 1955

SUBJECT Construction of the [redacted] Osinniki Power Plant near Stalinsk

NO. OF PAGES 10

PLACE ACQUIRED [redacted]

NO. OF ENCLS. (LISTED BELOW) 25X1

DATE OF INFO.

SUPPLEMENT TO REPORT NO.

25X1

THIS IS UNEVALUATED INFORMATION

[redacted]

1. Attached is a copy [redacted] which is being forwarded as received.

2. Throughout the report, Ossianiki should read Osinniki. Osinniki is located at N53-38, E87-24.

[redacted] 25X1

25X1

CLASSIFICATION C-O-N-F-I-D-E-N-T-I-A-L

STATE	X	NAVY	X	NSRB	DISTRIBUTION
ARMY	X	AIR	X	FBI	

[redacted] 25X1

CLASSIFICATION CONFIDENTIAL/

COUNTRY USSR REPORT

TOPIC Construction of the TEZ Ossinniki Power Plant near Stalinsk 25X1

EVALUATION PLACE OBTAINED 25X1

DATE OF CONTENT

DATE OBTAINED DATE PREPARED 14 February 1955 25X1

REFERENCES

PAGES 3 ENCLOSURES (NO. & TYPE) 2 - two sketches on ditto with legends on ditto

REMARKS

This is UNEVALUATED Information

1. TEZ Ossinniki Thermal Power Plant was located in a meander of the Tom river 25X1 Staro Kusnetsk, also referred to as Kusnetsk, an eastern suburb of Stalinsk, Kemerovo Oblast, at a distance of 1.5 km between the southern perimeter of the suburb and the Tom river. Ossinniki and Baydayevka villages were located east of the power plant and various industrial installations and a settlement in its vicinity. A spur track to the power plant branched off from the Stalinsk - Serenovka railroad line at the southeastern border of Kusnetsk. A shunting station was located about 1 km northeast of the power plant. The Stalinsk - Kusnetsk streetcar line was to be extended to the power plant. The road to Ossinniki and Baydayevka branched off from the Stalinsk - Kusnetsk - Serenovka highway and passed through the northeastern part of the plant area. The Ruspoyka swamp was located northeast of the power plant. 1

2. The construction of TEZ Ossinniki Power Plant was started in 1939 but was discontinued upon the outbreak of hostilities in 1941. After the war construction activities were continued to enlarge the plant. The project was not completed by August 1950. Part A of the power plant, which was completed by 1941 included one boiler- and turbine house equipped with two Soviet boilers and two Soviet 25X1 turbines; a switching station with additional rooms for workshops, an 25X1 outdoor transformer station and an unloading installation for coal with bunkers and a coal grinding shop. Part B constructed after the war within the frame of the Five-Year Plan, included an annex to the boiler and turbine house for four additional boilers and two turbines and also the enlargement 25X1 of other previously constructed buildings and installations. In the winter of 1947, the third turbine was put into operation and the fourth turbine in October 1948. In late 1948, further construction work was started for the installation of at least four more boilers and two turbines, the enlarging of the switching installations and the outdoor transformer station and the building of a new administration building with kitchen and mess hall. In mid-1950, the fifth turbine was to be put into operation and the foundations for the sixth turbine were to be laid. In early 1950, however, the first part of the last erected girders and the outer walls of the turbine and boiler house sank about 10 to 15 cm and had to be lifted with large hoisting cranes. Further sinking was prevented by supporting them with steel plates. The enlargements were scheduled to be finished by late 1950, but due to various delays, the completion of construction activities could not be expected

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before the summer of 1951. The power plant was to supply electric current to new plants and to the town in the Kusbas area and was to be connected to the ring main extending to Kemerovo. Once or twice every month, the power plant was inspected by civilian and military commissions, in the summer of 1950, by a commission from the Ministry of Industry and Energy (sic) in Moscow. In 1948 and 1949 Director Goldberg (fnu) was manager of the power plant. 2

3. The power plant covered an area of about 120,000 m^2. The roads had a tarred gravel surface. Water was supplied from the Tom river. A canal extended from the river to a reservoir with a pumping station which pumped water through underground pipe lines to the power plant and was located about 800 meters from the river. Sewages were passed to the river through another canal. 3

4. The boilers were preheated with oil and after having reached a temperature of 360°, were fired with high quality anthracite, mined about 10 km from the power plant, and shipped from there every day by large selfdischarging trucks to the two milling plants from where the dust was hauled to the boilers by means of conveyor belts and elevators. The coal consumption with six boilers in operation amounted to 800 to 1,000 tons per 24 hours. No information was obtained on the type and quantity of oil consumed. Soviet foremen stated that part A of the plant had a total output of 35,000 to 40,000 kW and that each of the two American turbines in Part B had a capacity of 25,000 kW. After the completion of all construction activities, the plant was to operate with a total of 8 turbines. From 1946 to late 1949, TEZ Ossinniki with two turbines in operation supplied power to an aluminum plant located in the vicinity. 4

5. No information was available on the work force. Most of the construction work was done by PWs. About 30 Soviet experts worked as foremen, and assembled boilers and electric installations. Twenty to 30 women occasionally did construction work. Work was done in one eight-hour shift and some times in one ten-hour shift. The 400 to 500 PWs worked at day-time only. Only very few PWs worked as electric welders and on the assembly of the turbines.

6. The plant area was surrounded by a board fence with barbed wire top about 2.5 meters high. Guards armed with machine guns were posted day and night at the watch towers. Additional guards were posted at the gates and at the two roads passing through the area. During day time all entrances to the boilers and turbines in operation and to the switching station were continuously guarded by 10 to 12 men plant police who wore some sort of black uniform and were armed with submachine guns and rifles. The PWs had no access to the plant installations which were completed and in operation. They were guarded during the work hours by camp guards. At night the power plant was iluminated by spot lights.

25X1

1. [redacted] Comment. For a location sketch prepared from the information [redacted] 25X1
[redacted] see Annex 1. The aluminum plant located just south of the power plant, the railroad bridge across the Tom river and the road passing through the northern part of the power plant were reported [redacted] 25X1 25X1 25X1

2. [redacted] Comment. [redacted] the power plant was constructed in three stages, the first stage from 1939 to 1941, the second one from 1945 to 1948 and the third one from 1948 to 1950. It seems credible that the third construction stage involving enlargements was scheduled to be completed in 1950, but it is unknown whether the project was actually completed by that time or not. 25X1 25X1 25X1

3. [redacted] Comment. For a sketch of the plant layout prepared from the information [redacted] see Annex 2. [redacted] the boiler and turbine house and switching station and the outdoor transformer station. [redacted] mentioned the coal bunkers and the milling plant and also the fact that the boilers were fueled with oil and coal. The two canals to the Tom river were confirmed [redacted] No clarification could be obtained on the reported bunkers with tunnel access located southwest of the plant area. They were possibly air raid shelters. It could not be determined whether all four new turbines were to be installed in part C of the boiler and turbine house. The reported dimensions would permit the installation of four turbines in this part of the building. The wide extensions of the fenced in plant area and the fact that so far no wall had been erected at the northern end of the building tends to indicate, however, that a fourth construction stage for a new annex might have been planned. 25X1 25X1 25X1 25X1 25X1

4. [redacted] Comment. Only vague information was obtained on the turbine capacity. 25X1
It is probable that the two [redacted] turbines had an output of 25,000 kW each. 25X1
With all eight turbines having the same capacity, the total output of the power plant would amount to 200,000 kW. No further conclusion can be drawn unless additional information is received especially on the purpose of the power plant within the industrialization of the Kusbas area.

Annex 1

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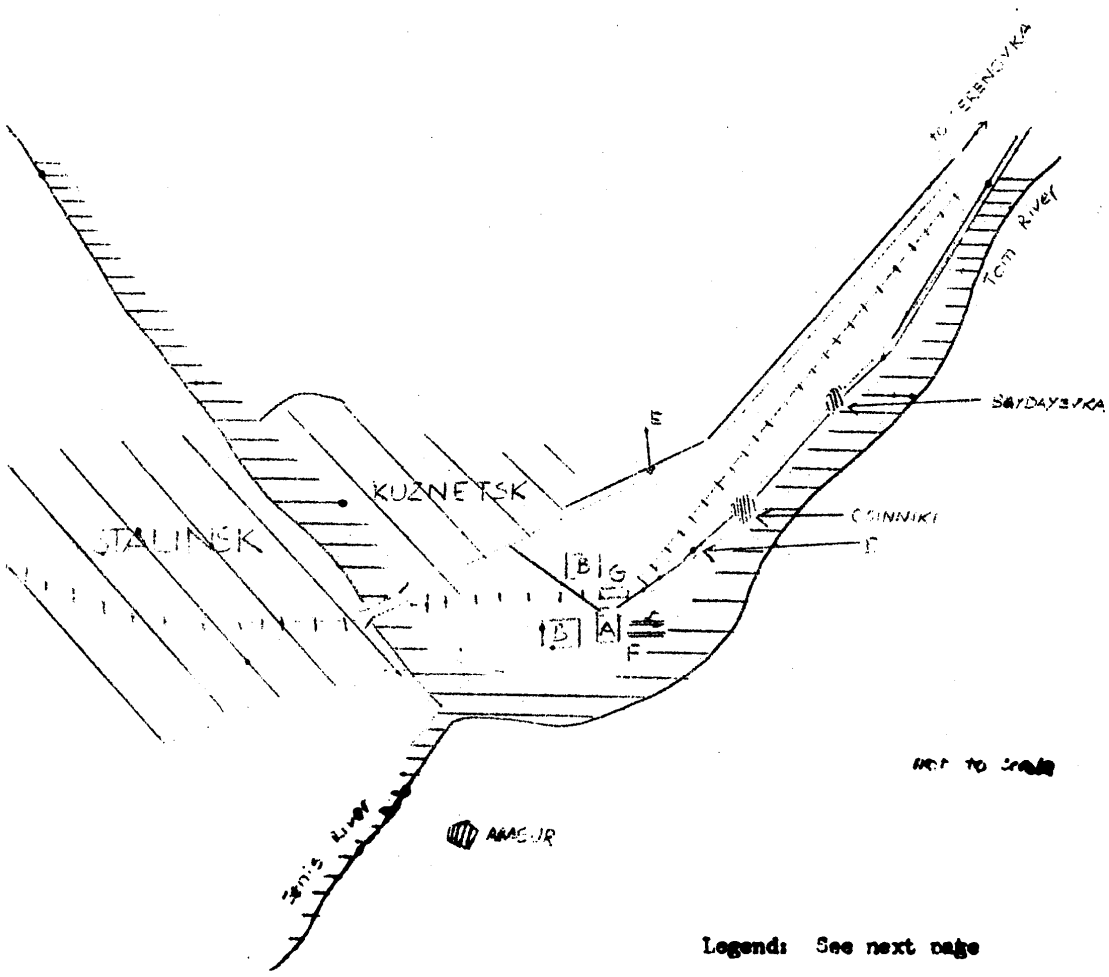
25X1

Location of TEZ Ossinniki Power Plant near Stalinsk



Legend: See next page

25X1
25X1
25X1

Location of TEZ Ossinniki Power Plant near Stalinsk

Legend:

A TEZ Ossinniki Power Plant

B Aluminum plant

C Pumping station and reservoir with two canals to the Tom river

D Stalinsk - Kusnetsk - Baydayevka road

E Stalinsk - Kusnetsk - Serenovka highway

F Ruspeyka swamps

G Shunting station

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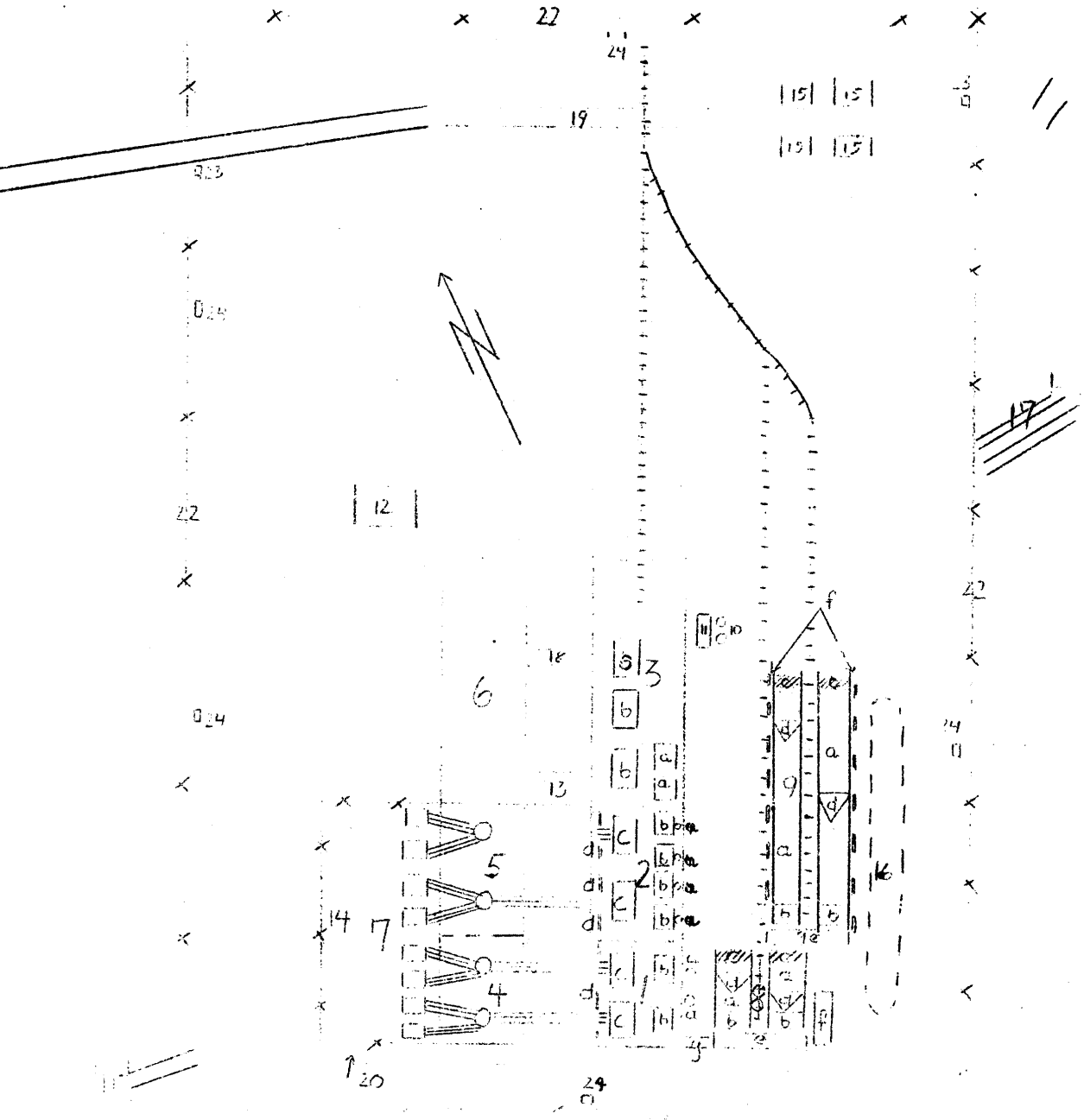
Annex 2

25X1
25X1

Layout of TEZ Ossinniki Power Plant Near Stalinsk



not to scale

Legend: see next page

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Layout of TEZ Ossinniki Power Plant near Stalinsk

Legend:

1 - 3 Boiler and turbine house, about 40 x 220 x 30 m, steel structure with concrete fillings. The foundations reaching 8 to 12 m underground carried iron girders, 30 to 35 m high, welded on the foundations at intervals of 2.5 to 3 m, and interconnected by cross beams. The walls, about 35 cm thick, were bricked up with 1½ bricks. The concrete floor of the halls, about 30 cm thick was supported on concrete poles, about 12 m high, which were driven into the swampy ground at intervals of 2.5 to 3 m. The roof, an about 30 cm layer of slag concrete, was covered with a layer of asphalt about 2 cm thick and two layers of roofing paper. A wall extending through the length of the building separated the western half with the turbines from the eastern part with the boilers. The outer walls has two rows of windows.

1 Part A, about 40 x 40 x 30 m, constructed during the first stage from 1939 to 1941.

a. Two sheet metal funnels, about 60 m high

b. Two Soviet steam boilers for oil and coal dust fueling 25X1

c. Two Soviet or English made steam jet turbogenerators 25X1

d. Overhead crane installation with two [redacted] cranes with a carrying capacity of 60 and 10 tons respectively. The installation extended into part B [redacted] 25X1

2 Part B. about 40 x 80 x 30 m, erected in the second construction stage from 1945 to 1948.

a. 4 sheet metal funnels, extending from the interior of the boiler shop about 10 m above the roof which was slightly flatted at this part

b. 4 oil- and coal dust fueled steam boilers [redacted] 25X1

c. 2 25,000 kW steam jet turbogenerators, [redacted] 25X1 25X1

d. Crane installation extending from Part A

3 Part C, about 40 x 100 x 35 m, erected during the third construction stage which was started in late 1948 and was not completed by summer 1950 when the bare structure was ready and some equipment had been installed. No wall had been erected yet at the northern end of the building into which a spur track extended. Part B and C were separated by a wall with about three doors.

a. 2 Soviet boilers installed in April 1950

b. 2 steam jet turbogenerators, assembled in April 1950 but not yet in operation. Originally [redacted] turbines were to be installed, but German and Hungarian made turbines had allegedly arrived 25X1

c. Completed turbine foundation for which about 500 m^3 concrete had been used. All turbine foundations were 2 or 3 m high. There was space for two or three more turbine bases in this part of the building.

4 - 6 Switching station with workshops, about 30 x 200 x 25 m. The two-story building had been erected in three construction stages. The ground floor of part 4 and 5 housed workshops including a fitting shop, a forge, an armature winding shop and stores. The main switching installations were located on the second floor. Part 6 was being plastered in April 1950.

7 Outdoor transformer station with long distance power lines extending in various directions, including one to Novosibirsk and one to Kemerovo. The three-wire power lines had a voltage of 10,000 V and were supported by masts, about 20 m high.

8 Open coal bunkers, about 20 x 40 m. A spur track supported by a concrete base extended into the center of the installation.

a Concret bunkers, about 4 m deep and 4 or 5 m wide

b Power unit for worm conveyers

c Hoisting drum for worm conveyers

d Worm conveyer hauling coal to the milling plant

e Coal milling plant

f Unloading station

g Slanting elevator, partly underground, carrying coal dust to the bunkers located over the boilers from where it was forced by compressed air into the boilers

9 Roofed coal bunker, about 20 x 100 x 10 m, ferro-concrete structure with bricked up walls. The roof was covered with concrete slabs. In ground level a spur track supported by concrete bases extended into the building. Concret bunkers, about 100 m long, 4 or 5 m wide and 4 m deep, were located on either side of the track. About 10 large selfdischarging trucks were unloaded simultaneously.

a Bunkers

b Engine for conveyer worm

c Hoisting drum for conveyer worm

d Conveyer worm

e Coal milling shop

f Supporting pillars

g Slanting elevator, partly underground, to carry coal to the bunkers overhead the boilers

10 Oil dump with two metal tanks, about 6 m in diameter and 4 m high

11 Pumping installation to pump oil through pipe lines to the boilers

12 Two-story administration building, brick structure about 20 x 20 x 10 m, with plant kitchen and mess hall on the ground floor

13 Connecting building, about 8 x 20 x 10 m, between boiler and turbine house and switching station; transformers were allegedly to be installed here. (sic)

14 Area surrounded by a fence, 2 m high. Outdoor transformers and various electric installations with insulators were seen here.

15 Temporary building housing workshops and stores for various materials

16 Coal dump

17 Pumping station, wooden building about 15 x 25 x 8 m, with reservoir and canals leading to the Tom river

18 Cable chute, about 170 cm deep and 150 cm wide, concreted and covered with concrete slabs, interconnecting Part C of the turbine and boiler house with Part C of the switching station.

19 Tarred gravel road branching off from the Stalinsk - Serenovka and passing through the plant area in the direction of Ossinniki and Baydayevka.

20 Above surface tunnel, about 10 m wide and 5 or 6 m high, leading from the boiler and turbine house to an H shaped bunker. The side walls, about 40 cm thick, had windows set at intervals of 10 to 15 m. The tunnels were to be covered with earth. It was continuously guarded. It could not be determined whether an air raid shelter was involved or not.

21 H shaped bunker, possibly an air raid shelter.

22 Fence

23 Guard house

24 Watch towers